CHAPTER- 1

INTRODUCTION

1.1 INTRODUCTION

Public Administration, over the world is undergoing a process of crucial change. The traditional model of administration characterized by hierarchy and its greater emphasis on rules leading to rigidity has been criticized on the grounds of inefficiency, corruption, lack of transparency and non-responsiveness. It is substituted by a new paradigm based on market approach known as ‘New Public Management’ (NPM). New Public Management, which originated in developed nations in 1990s, focused on service, quality, performance management and risk management. In recent times, good governance has emerged in the literature of public administration and institutions, such as World Bank and United Nations have placed greater emphasis on the need to have good governance particularly in developing countries. Good Governance is referring to efficient and effective management of country’s resources and affairs in open, accountable, equitable and responsive manner. Good governance emphasized on mitigation of corruption, participative decision-making, and greater responsive to the present and future needs of society. For accomplishing these objectives of good governance, Electronic Governance (E- Governance) has emerged as its essential component. It is considered as an important facilitator of good governance. E-Governance generally is the use of Information and Communication Technologies (ICTs) to transform government by making it

more accessible, effective and accountable. It allows better interaction between the government, its institutions and people.\textsuperscript{4}

The “e” in e-Governance stands for ‘electronic’. Thus, e-Governance is basically associated with carrying out the functions and achieving the results of governance through the utilization of Information and Communications Technology (ICT). For service delivery, E-Governance promises full service available to its citizens 24 hours a day, seven days a week online and capability to obtain government services without visiting their offices and reduced service cost. E-Governance contributes to the functioning of democracy by providing government information online, which otherwise would be difficult to obtain or unavailable, and through online debates and plebiscites.\textsuperscript{5} Today, E-Governance is widely recognized to possess as having the potential to change the shape and character of Government to Citizen (G2C) relationships.\textsuperscript{6} Thus, E-Governance could redefine the dimensions of government-citizen interface in democratic set-up.

\subsection*{1.2 CONCEPT OF E-GOVERNANCE}

Prior to discuss more about E-Governance, it is necessary to understand the concept of Governance, Good Governance and E-government.

\textbf{Governance} is the exercise of political, economic and administrative authority to manage a nation’s affairs. It is a complex of mechanisms, processes, relationships and institutions through which citizens and groups articulate their interests, exercise their rights and obligations and mediate their differences. Governance encompasses every institutions and organization in the society.

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from the family to the state and embraces all methods that societies use to distribute power and manage public resources and problems.

According to United Nation Development Program (UNDP), governance is the exercise of economic, political and administrative authority to manage a country’s affairs. Governance is the art of public leadership. There are three distinct dimensions of governance:

1. The form of political regime;
2. The process by which authority is exercised in the management of country’s economic and social resources; and
3. The capacity of government to design, formulate and implement policies and discharge functions.

Governance, therefore is the link between government and its broader environment, i.e. political, administration and social, and it is more to deal with the functionality or activities related to it. Governance is also distinct from government in a way that it is concerned with long –term processes rather than immediate decisions.

Good governance is a subset of governance, wherein public resources and problems are managed effectively, efficiently and in response to critical needs of society. It is also popularly termed as ‘SMART’ governance that is simple, moral, accountable, responsive and transparent government. It has eight major characteristics, i.e. participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive, and follows the rule of law. It ensured that corruption should be minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making. It is also responsive to the

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present and future needs of society. According to Kofi A, Annan, Former Secretary General of United Nations, “Good Governance is perhaps the single most important factor in eradicating poverty and promoting development.”

On the other hand “E-Government” refers to the application of ICT to promote more efficient and effective government and facilitate more accessible government services. It allows greater public access of information and makes government more accountable to citizens, constitutes a subject of e-governance and it might involve delivery of services to citizens by using ICT. In other words e-government leads to e-governance which is a broader concept and includes the use of ICT by government and civil societies to promote greater participation of citizens in the governance of political institutions.

E-governance means use of Information and Communication Technology (ICT) in government agencies, public sector and beyond, for the purpose of enhancing governance, improved interactions with business and industry. The main aim is to redefine governance in the age of IT to provide simple, moral, accountable, responsive and transparent (SMART) governance. The significance of increasing ‘e-Governance’ could be attributed to growing complications in governance process and to rising citizens’ expectations from government in the last few decades. ICT therefore, has facilitated efficient storing and retrieval of data, instantaneous transmission of information, processing information and data faster than the earlier manual systems, speeding up governmental processes, taking decisions expeditiously and judiciously, increasing transparency, less corruption, greater convenience, revenue growth and cost reduction and enforcing accountability. It also

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increased the government outreach – both geographically and demographically.\textsuperscript{14}

The emerging concept of E-Governance "has brought about a paradigm shift in IT usage and applications for good governance. It attempts to take public services and the government, literally to the doorstep of the citizens through IT. E-governance facilitates the delivery of government services to the masses through procedural simplicity, speed and convenience."\textsuperscript{15} and further, "E-governance is also seen as a multi-dimensional concept, and IT driven methodology that improves efficiency in administration, brings about transparency and leads to the reduction of costs in running the government. There are three main domains of e-governance: improving governmental processes (e-administration); connecting citizens (e-citizens and e-services); and building external interactions (e-society)."\textsuperscript{16}

E-governance, hence, is a new form of governance that has been accepted by all citizens because "E-governance and e-government initiatives now enable citizens to access government documents, order publications, file taxes, order vital records, and renew licenses and permits from any location with an Internet connection. In addition, there are already signs that e-government is transforming organizations by breaking down organizational boundaries and providing greater access to information, enhancing communication and facilitating democratic processes."\textsuperscript{17} Thus, E-Governance is rapidly taking the form of a movement. Several governments of the developed nations have switched over to electronics administration for connecting with the government by all forms, laws and other information available electronically to them. Mathew Symonds, therefore, aptly put forth "After e-commerce and e-business, the next will be E-Governance."\textsuperscript{18}

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\textsuperscript{14} Government of India (2009), "Promoting e-Governance: The SMART Way Forward", opcit p.8
\textsuperscript{15} Vijay Rattan,(2003),"E-governance by Information Technology: Initiatives of a Micropolitan City" in Good Governance Initiatives in India. E Vayunandan and Dolly Mathew (Eds). Prentice-Hall of India Pvt. Ltd New Delhi. p.86  
\textsuperscript{16} Ibid p 86 
\textsuperscript{17} Ibid p. 87.  
\textsuperscript{18} Mathew Symonds (2000), ‘The next Revolution-A survey of Government and the Internet‘, The Economist, June 24
\end{flushleft}
Although the term ‘E-Governance’ has gained currency in recent years, however, there is no standard definition of this term. Different governments and organizations define this term to suit their own aims and objectives.

**United Nations Educational, Scientific and Cultural Organization (UNESCO)** defines e-Governance as, “Governance refers to the exercise of political, economic and administrative authority in the management of a country’s affairs, including citizens’ articulation of their interests and exercise of their legal rights and obligations. E-Governance may be understood as the performance of this governance via the electronic medium in order to facilitate an efficient, speedy and transparent process of disseminating information to the public, and other agencies, and for performing government administration activities.” 19 It therefore, visualizes the use of the electronic medium in the exercise of authority in the management of a country’s affairs along with articulation of citizens’ interests leading to greater transparency and efficiency.

**The Council of Europe** has taken e-Governance to mean:

“The use of electronic technologies in three areas of public action:

1. Relations between the public authorities and civil society
2. Functioning of the public authorities at all stages of the democratic process (electronic democracy)
3. The provision of public services (electronic public services).” 20

The focus hence, is on making use of electronic technologies with a view to encourage better interaction between government and citizens, promote democracy and provide public services.

**The US E-Government Act of 2002** defines “electronic Government” to mean:

20 Ibid p.9
The use by the Government of web-based Internet applications and other information technologies, combined with processes that implement these technologies, to-

(A) Enhance the access to and delivery of Government information and services to the public, other agencies, and other Government entities;
or

(B) Bring about improvements in Government operations that may include effectiveness, efficiency, service quality, or transformation.21

This definition, thus reflect the strategy of the US Government regarding the use of ICT in improving Government operations on the one hand and enhancing the access and delivery of information and services to citizens and government entities on the other.

In simple words, E-Governance is a shorthand term for the use of Information and Communications Technology (ICT) in governance systems. Throughout the world, governments, businesses and NGOs are working together to bring about e-governance. These are not just experiments in new modes of service delivery. E-governance inevitably, is driven by new models of policy formulation, new forms of citizenship, new patterns of relationship and power, new options for economic development, and the search for new ways to connect people with the political process22.

Basically, E-Governance is generally understood as the use of Information and Communications Technology (ICT), at all levels of the Government, in order to provide services to the citizens, interaction with business enterprises and communication and exchange of information between different agencies of the Government in a speedy, convenient efficient and transparent manner.23 Dr. APJ Abdul Kalam, former President of India, has visualized e-

21 E-Government Act of 2002; accessed from http://frwebgate.access.gpo.gov/cgi-bin/getdoc on dated 30-10- 2008 at 12:12 pm
Governance in the Indian context to mean “A transparent SMART e-Governance with seamless access, secure and authentic flow of information crossing the interdepartmental barrier and providing a fair and unbiased service to the citizen.” 24

1.3 STAGES OF E-GOVERNANCE

E-Governance is intrinsically linked with the development of computer technology, networking of computers and communication systems. In developing countries, such technologies and systems became available with a perceptible time lag as compared to developed nations. However, in the case of India, with the liberalization of the economy from the early 1990s onwards, there has been a convergence in the availability of cutting edge technologies and opportunities in the field of e-Governance. The Indian experience therefore, demonstrates that the onset of e-Governance proceeded through the following phases:

1.3.1. Computerization: In the first phase, with the availability of personal computers, a large number of Government offices got equipped with computers. The use of computers began with word processing, quickly followed by data processing.

1.3.2. Networking: In this phase, some units of a few government organizations got connected through a hub leading to sharing of information and flow of data between different government entities.

1.3.3. On-line presence: With increasing internet connectivity, a need was felt for maintaining a presence on the web. This resulted in maintenance of websites by government departments and other entities. Generally, these web-pages/web-sites contained information about the organizational structure, contact details, reports and publications, objectives and vision statements of the respective government entities.

1.3.4. **On-line interactivity:** A natural consequence of on-line presence was opening up of communication channels between government entities and the citizens, civil society organizations etc. The main aim at this stage was to minimize the scope of personal interface with government entities by providing downloadable forms, instructions, acts, rules etc. In some cases, this led to on-line submission of forms. It was realized that most citizen-government transactions have the potential of being put on e-Governance mode.\(^{25}\)

### 1.4 SCOPE OF E-GOVERNANCE

E-Governance is the use of information and communication technologies to support good governance. It has the following main dimensions:

#### 1.4.1. Government to Citizen (G2C):

aims at connecting citizens to government by talking to them, by listening to their problems and improving public services. It involves better services to the citizens through single point delivery mechanism.\(^{26}\) In this case, an interface is created between the government and citizens which enables the citizens to benefit from efficient delivery of a large range of public services. This expands the availability and accessibility of public services on the one hand and improves the quality of services on the other. It gives citizens the choice of when to interact with the government (e.g. 24 hours a day, 7 days a week), from where to interact with the government (e.g. service centre, unattended kiosk or from one’s home/workplace) and how to interact with the government (e.g. through


internet, fax, telephone, email, face-to-face, etc. The primary purpose is to make government, citizen-friendly.27

1.4.2. Citizen to Government (C2G): mainly constitutes the areas where the citizen interacts with the government. It includes area like elections when citizens votes for the government; census where he provides information about himself to the government; taxation where he is paying taxes to the government28.

1.4.3. Government-to-Government (G2G): is also called e- Administration. In this case, Information and Communications Technology is used not only to restructure the governmental processes involved in the functioning of government entities but also to increase the flow of information and services within and between different entities. This kind of interaction is only within the sphere of government and can be both horizontal i.e. between different government agencies as well as between different functional areas within an organization, or vertical i.e. between national, provincial and local government agencies as well as between different levels within an organization. The primary objective is to increase efficiency, performance and output.29

1.4.4. Government to Business (G2B): includes both the procurement of goods and services by the government as well as the sale of surplus government goods to the public online. There are two motivating forces behind G to B. Currently, the business community prefers to carry out its activities such as sales, procurement, and hiring through electronic means. There are large numbers of software companies, which are producing number of products focusing on performing routine business activities on line. Thus, many companies like to extend the cost savings realized through Business to Business (B to B) transactions to their business with union, state and local level governments. The second reason for the growth of G to B is the demand for cost cutting and efficient procurements in the government. Developing

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28 Sameer Sachdeva (2003), opcit,p.36
29 Government of India (2009), Second Administrative Reform Commission. loc cit, p. 11.
countries, where there is great pressure to minimize costs due to shortage of funds, G to B are being encouraged by the governmental agencies.30

1.4.5. Government to NGO (G2N): implies building interactions beyond the boundaries of government by developing communities, by building government partnerships, and by building civil society. It also involves building various associations and interest groups that ensures the betterment of the society. Such initiatives deal particularly with the relationship between government and citizens: either as voters/stakeholders from whom the public sector derives its legitimacy, or as customer who consume public services.31

1.4.6. Government to Employees (G2E) – Government is by far the biggest employer and like any organisation, it has to interact with its employees on a regular basis. This interaction is a two-way process between the organisation and the employee. Use of ICT tools helps in making these interactions fast and efficient on the one hand and increase satisfaction levels of employees on the other.32

1.5 RESEARCH PROBLEM INTRODUCED:

The study is related to Union Territory, Chandigarh. Chandigarh is a first planned modern city of India designed by the French architect Le Corbusier, also called the City Beautiful. Total area of the Union Territory is 114 sq. km. According to the Census 2011, the total population of Chandigarh Union Territory is 1,054,686, with 580,282 males and 474,404 females. It is one of the very high literate parts of the country with literacy rate at 86.43%. From 1966 (the year Haryana was carved out of Punjab) Chandigarh is the capital of two states, Haryana and Punjab.33

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30 Anil Monga (2008), opcit. p 55
31 Sameer Sachdeva (2003), opcit. p 36
Chandigarh Administration has provided a responsive and effective administration for the welfare of the public keeping in view the national objectives. It recognizes the need to harness the growing power of IT for the betterment of the life of the residents of Union Territory of Chandigarh and announced it's IT Policy in April 2000 in order to encourage the use of Information Technology for applications in the field of government, education, industry, commerce and other fields.\textsuperscript{34}

The vision of Chandigarh Administration is to create a knowledge-based society through extensive use of Information Technology. Chandigarh Administration envisages a scenario wherein every citizen shall be able to access the benefits of Information technology. The ultimate goal is to use I.T. as a medium for effective interaction between the Administration and the public so that exchange of information and access to government departments is speedy and easy, leading to a better quality of life. Chandigarh Administration is committed to provide better public service to its citizens through e-governance, which is efficient, speedy, simple and cost effective. To achieve this objective, the Chandigarh Administration has decided to set-up an interactive web portal and Electronic Citizen Service Centers across the city. This initiative is named as Project Sampark, under which electronic Citizen Service Centers have been established in the city by the name 'Sampark' at different locations (Sector 10, 15, 18, 23, 43, 47, Mani Majra and Industrial Phase-1). Sampark Centers aim at providing different government services under a single roof, eliminating the problem for citizen to go to different government offices. These are multi-services single window system providing integrated, efficient and quick services. The following services have been integrated and offered from Sampark Centers for the people.

\textsuperscript{34} Chandigarh Administration (2003-2004), \textit{Annual Report on Information Technology}, Department of Information Technology, Chandigarh
Table 1.1
Services Provided By Sampark Centres

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Department (G2C)</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Excise &amp; Taxation</td>
<td>• Payment of taxes&lt;br&gt;• VAT/CST Collection</td>
</tr>
<tr>
<td>2</td>
<td>Chandigarh Transport</td>
<td>• Issue of Bus Passes</td>
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<tr>
<td></td>
<td>Undertaking</td>
<td></td>
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<tr>
<td>3</td>
<td>Social Welfare Department</td>
<td>• Issue of Senior Citizen Card&lt;br&gt;• Issue of Disability Identity Card&lt;br&gt;• Disbursement of pension for old age persons, widows and disabled persons</td>
</tr>
<tr>
<td>4</td>
<td>Engineering Department</td>
<td>• Payment of Electricity Bill&lt;br&gt;• Booking of Tubewell for irrigation in Rural Area</td>
</tr>
<tr>
<td>5</td>
<td>Births &amp; Deaths Registration Department</td>
<td>• Issue of Birth &amp; Death Certificates</td>
</tr>
<tr>
<td>6</td>
<td>Municipal Corporation</td>
<td>• Payment of Water &amp; Sewerage Bills&lt;br&gt;• Open Space bookings&lt;br&gt;• Community Hall Bookings</td>
</tr>
<tr>
<td>7</td>
<td>Education</td>
<td>• School Fee Collection of 20 GMSS Schools</td>
</tr>
<tr>
<td>8</td>
<td>Health</td>
<td>• Doctor’s Appointment for patients to GMSH &amp; GMCH</td>
</tr>
<tr>
<td>9</td>
<td>Chandigarh Police</td>
<td>• Tenant Registration&lt;br&gt;• Domestic Servants Registration&lt;br&gt;• General, Sticker and Postal Challan</td>
</tr>
<tr>
<td>10</td>
<td>Treasury</td>
<td>• Sale of Stamp Papers&lt;br&gt;• Sale of Stamps and Special Adhesive Stamps</td>
</tr>
<tr>
<td>11</td>
<td>Chandigarh Housing Board</td>
<td>• Chandigarh Housing Board - Sale &amp; Receipt of Forms&lt;br&gt;• All deposits for dwelling Units of CHB</td>
</tr>
<tr>
<td>12</td>
<td>GOI Services</td>
<td>• Passport Application Submission</td>
</tr>
</tbody>
</table>

B2C Services
• Telephone Bill Payment -<br>• BSNL - WLL, Landline<br>• HFCL - Connect<br>• Airtel - Mobile<br>• Airtel - Landline<br>• Spice - Mobile

Source: http://www.chandigarh.gov.in/egov_esmpk.htm
**E-Jan Sampark and E-Gram Sampark Centres:** Chandigarh Administration has also opened e-Jan Sampark Centre in the city to provide following services such as grievance/complaint redressal system, form and procedures to avail different government services, address and contact information of government offices, non-government sector & details of services and property details etc. The required information/services can be obtained in printed form for a token price of Rs. 2 per page.

E Gram Sampark centres have also been opened in the Rural areas of Chandigarh to provide the services to the citizens of the rural areas.

The study examined the Policy and Administration of e-governance in Union Territory Chandigarh.

### 1.6 REVIEW OF LITERATURE

Review of related studies provides the background and context for the research problem. It implies locating, reporting and evaluating reports of research as well as reports of casual observation and opinions that are related to individuals who have planned and executed research studies.

An attempt has therefore been made by the researcher in the current study to carry out a comprehensive and thorough survey of the related literature. The present review is based on the available material and has been limited to policy and administration of e-governance.

A large number of studies have been undertaken in the research field under consideration. Selected studies have been reviewed as under:

**Dey (2000)**\(^{35}\) has focused on the present status and future potential of e-governance in India. The Author analyses some serious problems and challenges that confront implementation of e-governance in India. According to him, e-governance transforms life of people through efficiency,

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transparency, complete objectivity and prevents mal-practices. E-governance has tremendous potential to provide better services to people.

**Mukhapadhyay (2000)** has analyzed the changes brought by fast developing information Technology (IT). He examined the impact of information technology on the administrative culture affecting both structure and nature of administrative functions. IT is constructing information superhighway and free and easy access of information. Study emphasises on team spirit, transparency and free flow of information for good governance.

**Sudan (2000)** stated that information technology (IT) is helping in realizing simple, moral, accountable, responsive and transparent (SMART) government. Author has presented the achievements of government in implementing the e-governance in the form of investments in laying of state wide optic fiber, digital networks and state wide wireless communication networks. Study finds that various IT based projects in Andhra Pradesh, are providing multiple services to the citizens. Author recommends that strong political will is required for successful implementation of e-governance.

**Malick and Murthy (2001)** in their paper felt that public services delivery system is poised to take a quantum jump in term of speed, quality and coverage with the advent of e-governance. They also defined the fundamentals of this emerging phenomenon and discussed the role and responsibilities of government and citizens in the implementation of e-governance.

**Rattan (2001)** in his study of the e-governance initiatives in Chandigarh had highlighted that the Chandigarh Information Technology Policy aimed to provide public services, promote industry and business. reduce

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unemployment, increase software exports and, above all, improve the quality of life of the people by the use of Information and Communication Technology. It also focused on human resource development, creation of IT infrastructure and development of IT industry in Chandigarh. Significantly, the mission is to strive to make Chandigarh an ideal IT destination by providing public service for the residents through efficient, speedy and cost-effective e-governance.

Ho (2002) in his paper stated that Internet provides a powerful tool for reinventing local government. According to him, Internet encourages transformation from the traditional bureaucratic paradigm, which emphasizes standardization, departmentalization and operational cost efficiency to the ‘E-Government Paradigm’, which emphasizes coordinated network building, external collaboration and customer services. He observed that explosive growth and internet uses and rapid development of e-commerce in the private sector have put growing pressure on the public sector to serve citizen electronically, which is often known as e-government initiative. He opined that insufficient staff, lack of funds and the problem of digital divide among racial groups are the major hindrances in the spread of e-government.

Kalsi (2002) in his paper, he has discussed the role and scope of information system in the government organizations. Further, in the paper, different phases for the implementation of the information systems have been described. He has also provided a detailed road map with policy framework and infrastructure requirements for implementing information Systems in the government organizations. He opines that Information Systems can enable better access of information to citizens and will also bring transparency.

Moon (2002) in his paper opined that information technology has become such a core elements of managerial reform, that electronic government (e-government) may figure prominently in future governance. This study is

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designed to examine the rhetoric and reality of e-government at the municipal level. This study also explored two institutional factors (size and type of government) that contribute to the adoption of e-government among municipalities. The study concluded that many municipal governments have adopted e-government, but it is still at an early stage and has not obtained many of the expected outcomes such as cost saving, downsizing, etc. that the rhetoric of e-government has promised. The study suggested there are some widely shared barriers (lack of financial, technical and personnel capacities) and legal issues (such as privacy) to the progress of municipal e-government.

Sharma (2002)\(^43\) in his paper, analysed how in the present times, the use of information and communication technologies in good governance is being practiced. He is of the opinion that e-governance should not be viewed as a mere technological initiative, but as a part of the process of governance. The process perspective looks at governance beyond the analytical or technical dimensions and incorporates the organizational and behavioral dimensions as well. According to him, several under-developed countries have successfully used e-governance. India does not lag behind in terms of the technology, but there is a need to develop a holistic approach to e-governance.

Pamela and McGuirk (2003)\(^44\) focused on the role of e-governance, which has been providing public services in U.K. through e-fire project. The study revealed that project is helping in reducing fire caused accidents, injuries, death and loss of property etc. Authors stated that this type of modernization of public services is helpful for socio-economic development of a nation.

Rajan (2003)\(^45\) indicated that the information technology has reached in the rural areas and targeted first those authorities of the rural areas that are the


part of market economy and close to the interfaces of government but not the poor and underprivileged sections of society. According to the researcher, information and communication technology must reach the rural areas by using low cost computing, solar and other non-conventional energy devices, to provide better services and for the upliftment of social and economic life of the rural masses.

Sachdeva (2003)\textsuperscript{46} has analyzed that information and communication technology (ICT) has a valuable potential to meet the goals of good governance. He highlighted various challenges hindering implementation of e-governance and gave a ten-point strategy for implementing e-governance in India. He brought the objective of achieving electronic governance (EG) beyond mere computerization of standalone back office operation and brought the idea of fundamental change as how the governance operate. He identified the new set of responsibility for the executive, legislature and citizens.

Adams (2004)\textsuperscript{47} has examined the current position about e-readiness in general and higher education in particular and proposed a tool for evaluating e-readiness in higher education in India. He has analyzed how e-readiness is emerging as a key for social development by providing higher education through information and communication technology (ICT) and highlighted the features of e-readiness in education. He discussed two challenges diffracted ICT in higher education: less awareness about technology and lack of coordination among different institutions.

Chaudhary and Gautam (2004)\textsuperscript{48} has examined the impact and role of information technology in the organization's functioning and bringing new changes by technology for providing better services. According to them, e-governance is the use of electronic tools in procedures and working of different facet of the governments. They stated that not only involve changes

in the strategies but also changes in the structure of the organization. This paper attempted to identify and understand the changes in the structure of organization in the new era of e-governance

Dhameja and Medury (2004) in their article examined the use of information and communication technology in the governance. Authors stated that ICT is an efficient tool and has capacity to create transparency, efficiency, openness and re-engineer organizations in the governance. They further stated that ICT is useful for socio-economic development and establishment of good governance

Ghosh and Dass (2004) in their paper focused on the Union List, State List, and the Concurrent List of the Constitution of India to make the vision of developing e-governance clear. In their study some fundamental policy issues have been highlighted and suggestions have been given for the introduction of e-governance framework, keeping in view the policy imperatives.

Gupta and Sharma (2004) in their study examined that e-governance is a basic necessity in improving the G2C (government to citizen) relationship. In this context researchers put special focus on Andhra Pradesh e-government initiative, ‘e-seva’. The paper studied in detail the direction of utilizing the SERVQUAL instrument and looked at the service quality provided by the state. In addition, paper makes a theoretical contribution in the innovation of new models of service delivery. The authors also have provided some direction for future research in this area.

Gupta, Bhattacharya, Sabharwal and Gupta (2004)\textsuperscript{52} in their paper attempted to introduce the concept of architecture and technology standards as a tool to develop integrable, scalable and robust e-governance solutions, while employing multiple solution providers.

Jaarsveldt and Naidoo (2004)\textsuperscript{53} in their paper provided a perspective on e-government in South Africa and also focused on various developmental issues that are hampering the proper development of e-government in South Africa.

Jagadish (2004)\textsuperscript{54} in his paper argued that in the absence of adequate theory, it is difficult to analyze an e-governance project and predict or measure its efficiency. This paper took an example of two real cases and suggested that time tested theories of systems, economic analysis and quality of service can be drawn upon to develop a framework for a theory of e-governance.

Pardhasaradhi (2004)\textsuperscript{55} has examined the role of information and communication technology (ICT) in government, which has changed the organizational structure and has played a vital role in establishing different communication network. Study defined that ICT was helping in increasing the people’s participation and transparency, enhancing efficiency and effectiveness in delivery of public services to the people. Author highlighted various problems and area of concerns that need to be given immediate consideration on implementation of ICT for efficient governance.


Naidoo (2004)\textsuperscript{56} in his paper examined the introduction and implication of the electronic model for governments in developing countries. According to him, it is evident that globalization and information technology is impacting on how developing countries, conduct their business and how these governments, implement their day to day activities. According to the author, e-governance is a tool which can enable the developing countries to create new market opportunities and is helpful for providing quality services to the masses.

Saxena (2004)\textsuperscript{57} has defined that e-governance initiatives are almost common in most countries including industrial, developing and under developed. According to him, unfortunately most of the initiatives have not been able to get the claimed benefits. He has explained the reason for this failure i.e. a techno-centric focus rather than a governance-centric focus in the initiatives. The paper explains the necessary attributes of governance-centric initiative under the shade of excellent government and describe a methodology called e-governance engineering, which will ensure excellence in e-government implication.

Singh, Agrawal and Sahu (2004)\textsuperscript{58} in his study analyzed that decision-making is most important aspect of government which is more time consuming and complex task. Study stated that information and communication technology (ICT) is only tool that can improve the decision-making in the government significantly and bring the real benefits of the e-governance to its citizens.


Wadhwa and Bibhushan (2004) discussed about the role of Decision Support System (DSS) in E-Governance. It was demonstrated by logical reasoning that only information and communication technology (ICT) without DSS is not sufficient to handle all the problems of E-Governance.

Zuheir and Daniel (2004) in their paper introduced a knowledge approach for e-government strategic planning and emphasized on the methods of decision-making, intelligence and web programming. They also emphasized that there is no super approach to e-government strategy and that developing such approach would depend on the assumptions based on the environment and the expected output.

Aneja (2005) in his study discussed the external and internal objectives of e-governance. He also discussed the e-governance at Global level. In his paper, an attempt has also been made to study the political, social, economic and technological aspects of e-governance with the help of Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis. In the end, he discussed few principles to be used for reinventing the government.

Dugdale, Daly, Papandrea and Maley (2005) in their paper, while highlighting the Australian experiences on e-governance observed that the internet is becoming more integral to government and their modes of doing business and delivering services. This is creating a new imperative to address the digital divide. In Australia, citizens who are the biggest users of government services are the least likely to be connected to the Internet. The article explores what has been learned from some of the Australian initiatives for connecting the unconnected to online government services. It concluded that greater attention to community-based human capital development is needed.

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Jho (2005) in his article analyzed the factors that caused recent conflicts between the Korean government and civil society over e-government initiatives and draws implications for e-governance. He also emphasized on the technical standard and social standard of the e-governance. He also discussed the gaps between technical standards, which idealize efficiency and social standards, which weigh e-privacy as supreme, breed conflict. Finally, the research draws some implications for e-governance and democracy.

Kernaghan (2005) is of the view that governments around the world is increasingly seeking to provide integrated, citizen-centered service delivery. The aim is to organize the delivery of services from the perspective of citizens rather than of governments and to deliver these services seamlessly across governments and across the delivery channels (Internet, telephone and service-counter). The four major categories of the barriers to integrated services delivery are: political, structural, operational and cultural. According to the author the means of overcoming these barriers include such approaches as- creating new services delivery models, perfecting partnerships, establishing an effective governance framework and providing dedicated funding. The challenge to integrate services and service channels become greater as initiatives move from the inter-departmental sphere to the inter-jurisdictional and inter-sectoral spheres.

Norris & Moon (2005) in their paper found that through the e-government adoption at the grass-root is progressing rapidly: however the movement toward integrated and transactional e-government is progressing much more slowly. According to them in the United States, all federal agencies, all state governments and over 80 percent of all general purpose local governments have websites through which they offer information and services 24/7 to

citizens, other government, businesses and non-profit organizations. They opined that the most e-government in United States is principally informational; that is it involved one way transmission of information from government to citizen, usually by way of static information pages, downloadable forms and e-mail. Few governments offered two way transaction of e-governance (making purchases, payments, reservation or recording complaints). It provided either horizontal (within a government unit) or vertical (among level and layers of government) e-government integration. Further they stated that local governments have encountered several barriers to the adoption of e-government. Most significant of these include, lack of technology or web staff and expertise, lack of financial resources, and issues around privacy and security.

Brewer, Neubauer and Geiselhart (2006) explained the impact of Internet and information communication technology on government and examined the emerging challenges and opportunities of information technology in government. Then they defined that how e-government system was improving the instrument process of the government. Authors argued that public administration should take an active role in designing and implementing e-government system with democratic values.

Conray and Evans (2006) have examined that the use of information and communication technology is a tool to promote citizen participation in the planning process. The analysis is based on an examination of municipal planning related to Web Sites. Authors highlighted the dominance of simple, information-based e-government tools and suggested that population-related and geographic-related variables are significant and pervasive influences on the provision of these tools.

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Cook and Horobin (2006)\textsuperscript{68} have explained the e-government as a part of development strategies. Authors analysed that e-government is using free and opens software system (FOSS) that creates balance of intellectual property at both domestic and international level. According to them FOSS base e-governance was very useful for countries’ development and it maintained balance between developed and developing countries.

Jaju (2006)\textsuperscript{69} in his study on a project title ‘SAUKARYAM’ in Visakhapatnam Municipal Corporation found that every service extended by City Corporation is being extended online under the project. According to him, the primary aim of the project has been to improve the interface of the citizens with the government departments. Further, the project creates an online window to the citizens to pay all their utility bills under one roof. He states that corporation website www.saukaryam.org, which, evolved, developed and is being maintained on a public-private partnership platform, not only is helping in the speedy dissemination of information but also in ensuring easier access to services for citizens online.

Kumar and Singh (2006)\textsuperscript{70} have made detailed study of “Lokvani” public private partnership program, which is providing various online services to the citizens, which include- land record, arm licenses and on line public grievance redressal system. The study concluded that the project has resulted in enhancing transparency, accountability and efficiency in delivery of services, citizen friendly environment, reduction in corruption and saving in costs and time.


Monga, Mehta and Singh (2006) in their paper have studied e-governance initiatives in different states and especially e-Sampark Centres Chandigarh which are utilizing the services of private sector to provide multiple services to the citizens through a single window system. Authors have found that these e-governance initiatives are helpful in increasing quality of public services and make the administration more responsible and accountable. At the end they offered some suggestions to improve the performance and efficiency of e-Sampark Centers. Authors stated that effective implementation of these initiatives is good for enhancing the quality of services delivered to the citizens.

Sharma (2006) in his paper explained that e-governance can be formulated in government and in all sphere of life but the success lies in its well implementation. According to him, it requires continued and innovative thinking to upgrade the quality to become user friendly and efficient. In this paper, author has explained personal information and management system (PIMS), which is implementing e-governance practices in personnel administration at both union and state level government. It has 35000 employees in its database. He stated that it empower the citizen, employees, administration and government. Study has explained the challenges faced in its formulation and implementation.

Tolbert and Mossberger (2006) stated that the e-governance has been proposed as a way to increase citizen’s trust in government and improve citizen’s evaluation of government. The Authors also suggested that e-governance can increase trust by improving interactions with citizens and perceptions of responsiveness. Authors defined attitudes towards government including trust, are core concern for democratic governance and public administration.


Das (2007)\(^74\) stated that Information Technology (IT) is enabling high quality, cost effective services, and providing skilled manpower and quality infrastructure. According to the study India is shining in IT and hoped that it would provide employment to 1.1 million people by 2010. Author stated that the poor states have not been able to take the advantages of ‘digital economy’ and the situation of ‘digital divides’ occurs among different states. Author made new strategies to face these challenges, in addition he gave suggestions for growth and development of IT.

Gassi, Ramnarine and Wilkins (2007)\(^75\) in their paper defined the new e-governance framework in commonwealth countries. the vision is “ICT socialism” coupled with strategic business acumen. The literature recognizes that strong e-leadership and stakeholder’s cooperation is tool to the success of e-governance.

Mishra (2007)\(^76\) stated that e-governance is a tool, which is reducing corruption, creating transparent, accountable, sustainable, reliable and efficient system for delivering public service to the citizens. According to him Information Technology (IT) alone cannot be effective: so he argue that e-governance is required - the planning of administrative strategies, efficient use of resources and strong political will to combating corruption. In addition, he recommended policy to improve the e-government strategies by removing corruption.

Monga and Malhotra (2007)\(^77\) have expressed that e-governance is a paradigm shift from tradition approach in public administration and analyzed that e-governance has a potential to remove the inequalities of government.

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\(^74\) Diganta Kumar Das (2005), ‘Information and Communication Technology (ICT) and India’s Development: Achievements and Challenges Ahead”. *Journal of Services Research*. December, pp 93-108


Study found that ICT in government can bring a change in the quality of services; can make the system more transparent, simple, accountable, better record management, efficient personal dealing and reduce the scope of corruption.

Rao and Bikshapathi (2007)\textsuperscript{78} in their study have analyzed the role of e-governance to provide tender related service by e-procurement through public private partnership (PPP) project in Andhra Pradesh. Authors defined that project has increased the participation of suppliers and empowered small and medium sized suppliers. In addition, the project has helped in reducing the processing time, cost and ensures social responsibility. It reduced cartel formation amongst contractors and suppliers.

Singh (2007)\textsuperscript{79} in this study, author has examined the impact of electronic services delivery at national and state level. He briefly analyzed the Sampark Centres which provide electronic service delivery in the Union Territory, Chandigarh. He stated that emergence of e-governance has enhanced the efficiency, effectiveness, transparency and promotes information system.

Sodhi (2007)\textsuperscript{80} has stated that electronic governance has provided basic and regulatory services to the citizens and has improved transparency, accountability and efficiency in delivery of services and also reducing corruption. Author further noted that the process of information technology (IT) and E-governance is simple, easy, low cost, and provide greater transparency in government operations. Author concluded that IT is also helpful in enhancing quality of services to rural, poor and downtrodden section of society.


Ya and Bretschneider (2007)\(^81\) in their article focused on public private partnership for better information technology services by the government. They have discussed the different benefits of the PPP for e-governance initiative. Authors have also found that, the political and economic factors affect the government decision to contract for e-government services.

Coursey and Norris (2008)\(^82\) in their paper made an attempt to discuss that research into e-government is relatively new. Nevertheless, much contemporary thinking and writing about e-government is driven by normative models that appeared less than a decade ago. The authors present empirical evidence from three surveys of local e-government in the United States to test whether these models are accurate or useful for understanding the actual development of e-government.

Dawes (2008)\(^83\) stated that E-governance comprises the use of information and communication technologies (ICTs) to support public services, government administration, democratic process, and relationships among citizens, civil society, the private sector, and the state. Developed over more than two decades of technology innovation and policy response, the evolution of e-governance is examined in terms of five interrelated objectives: a policy framework, enhanced public services, high-quality and cost-effective government operations, citizen engagement in democratic processes, and administrative and institutional reform. This summary assessment of e-governance in U.S. states and local governments show that the greatest investment and progress have enhanced public services and improved government operations. Policy development has moved forward on several fronts, but new policy issues continually add to an increasingly complex set of concerns. The author stated that the least progress appears to have occurred in enhancing democracy and exploring the implications of e-governance for


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administrative and institutional reform. According to the author, ICT-enabled governance will continue to evolve for the foreseeable future providing a dynamic environment for ongoing learning and action.

Jager and Reijswoud (2008) discussed that E-Governance is a powerful tool for bringing about change to government processes in the developing world. E-governance operates at the cross roads between Information and Communication Technology and government processes, and can be divided into three overlapping domains: e-administration, e-services and e-society. In order to be successful, e-governance must be firmly embedded in the existing government processes, must be supported, both politically and technically, by the governments, and must provide users with reasons to use these on-line domains. In order to maximize the impact, process change needs to be considered part and parcel of e-governance. They evaluated an e-governance programme in the East African country of Uganda. The programme, District Net, tries to provide transparency at the local government level and to improve the provision of public information through the implementation of ICT. District Net started in 2002 and is on-going. The achievements of the programme are presented and evaluated according to the criteria of the three domains of e-governance and their impact on government processes. On the basis of this evaluation, they elicited lessons that can be used to guide similar programmes at the local government levels in the developing world.

Kim (2008) has made an attempt to define key components of e-government leadership and innovation strategy for effective e-government development in local government. Based on an in-depth case study of a local district in South Korea, this study examines how executive leadership creates citizen-centered local government innovation through adopting e-government and building management capacity. The key lesson for e-government leadership collected patiently from this study is that the executive leader’s

capacity to integrate clear e-government vision and goals, effective communication and appropriate management systems is vital to successful e-government innovation. The study shows that employee training and the demonstration of a clear vision of e-government innovation rely on the development of strong management capacity in the areas of IT capacity, human resource management capacity, and IT education for citizens. Lessons and implications of the study for effective e-government leadership and innovation are presented in the paper.

Monga (2008)\textsuperscript{86} opined that Public administration, governed by bureaucratic structures built on rationale principles, that dominated the twentieth century, has failed to respond to the changing requirements of the present times. He stated that e-governance, which is a paradigm shift over the traditional approaches in public administration, means rendering of government services and information to the public using electronic means. This new paradigm has brought about a revolution in the quality of service delivered to the citizens. According to him, it has ushered in transparency in the governing process; saving of time due to provision of services through single window; simplification of procedures; better office and record management; reduction in corruption; and improved attitude, behavior and job handling capacity of the dealing personnel. The study substantiated these theoretical assumptions about e-governance by analyzing some experiences at the local, state and federal levels of government in India.

Pardhasaradhi and Kaur (2008)\textsuperscript{87} in their article reviewed that the world has witnessed an unprecedented turnaround in the field of public administration with the introduction of electronic governance (e-governance) as a guiding concept. More than ever, the developing nations too have caught up with the Western world in adopting the latest information and communication technologies (ICTs) for governance. The theory of e-governance has only been enhanced with far-ranging innovations in the public private partnership

\textsuperscript{86} Anil Monga (2008). op cit.

PPP) models. Governments, the world over have been adopting the PPP route in the implementation of e-governance programmes in the major areas of education, health, housing, agriculture, rural development, human and natural resources development, commerce, taxation, transportation, urban development besides the core public services. This article focused primarily on the journey that India has undertaken thus far in e-governance with implications for public private partnerships as a policy instrument.

**Raman (2008)** stated that many studies of electronic government employ stages of e-government models and use government and governance as interchangeable terms. According to the author, this is problematic since they make technology central to the analysis and do not examine whether deploying information technologies resulted in effective governance and community empowerment. This study examines these issues through a study of e-government initiatives in Bangalore City, India. First, it employs the stages of e-government model to evaluate the city's initiatives and then examines alternative ways of employing information technology to increase civic empowerment and governance. It makes a case for new models of analysis that are specific to developing countries.

**Sangita and Chandradash (2008)** in their study examined the reforms of e-governance, which is establishing smoother interface between government to citizen, citizen to government, government to business, business to government and government to NGO. Authors have analyzed that e-governance initiatives have broadened the scope of government and increased the quality of public services. In the end, they suggested sound policy, adequate infrastructure, trained manpower, collaboration, cooperative services and people’s participation is essential to promote e-governance.


Verma, Sinvhai, Nangia, Sharma, Kumar and Pant (2008) in their paper has dealt with a UNDP-funded, e-governance pilot project which was implemented by Indian Institute of Technology, Roorkee in Uttarakhand, India. A Participatory Rural Appraisal exercise was carried out to assess peoples’ needs and aspirations, which was followed by a Business Process Re-engineering exercise to make government’s departmental working more efficient, transparent and adaptable to computerization. A citizen centric “Uttara” portal with information and data on 115 departments/organizations of the state, was developed. The authors stated that the delivery of the services of some select government departments has been tried in Nainital district of Uttarakhand, India, through Information Kiosks (Soochna Kutirs) which are run by local people.

Alshawi and Alalwany (2009) Like the evaluation of all other information systems initiatives, the evaluation of e-government in both theory and practice has proven to be important and complex. The complexity of evaluation is mostly due to the multiple perspectives involved, the difficulties of quantifying benefits, and the social and technical context of use. The importance of e-government evaluation is due to the enormous investment put in by governments for delivering e-government services and to the considerable pace of growing in the e-government field. However, despite the importance of the evaluation of e-government services, the literature shows that e-government evaluation is still an immature area in terms of development and management. This work is part of a research effort that aims to develop a rigorous and holistic evaluation framework for e-government systems. The main aim of this article is to develop evaluation criteria for an effective, adaptable, and reflective assessment of e-government systems from the citizen’s perspective. Developing countries suffer from poor citizen utilization of their e-government initiatives, and the adoption of such criteria would


positively contribute in enhancing governmental understanding of the factors that influence citizen utilization of e-government systems. Moreover, the criteria also can be used as means for providing valuable feedback for the planning of future e-government initiatives.

Babu and Prasad (2009)\textsuperscript{92} based on a study of selected e-Seva centres in Hyderabad showed that compared to earlier practice e-services are more reliable, citizen-centred and reduce corruption. e-Seva aimed to cover electronic service as ‘one-stop-shop’ between Government to Government (G2G), Government to Citizen (G2C), Government to Business (G2B) in an effective, efficient, convenient, equitable and cost-effective manner. The project seeks to provide smart and good governance in tune with the principle of new public management and changing nature of Andhra Pradesh state.

Chauhan (2009)\textsuperscript{93} report lamented the establishment of the National e-governance Plan in India. It discussed the vision, components, implementation strategies and governance structure of the plan. It presented some basic facts about India, covering the political, geographical, social, economic and regulatory aspects. Subsequently, author highlighted the status of the IT sector in India. Finally, challenges faced in the implementation of the plan were also discussed.

Kalsi, Kiran and Vaidya (2009)\textsuperscript{94}, tried to focus on the factors for good governance by harnessing the use of Information technology. The study specifically addressed the e-government initiatives such as e-Seva of Andhra Pradesh, Mahiti Shakti of Gujarat, Friends of Kerala etc. These initiatives have a direct impact on the citizens as citizens derive benefit through direct transactions with the governmental services in an impartial, transparent and hassle-free manner leading to increased satisfaction level of the citizens.

\textsuperscript{92} Satish Babu and Sheela Prasad (2009), "Conceptualising the process of e-governance", Indian Journal of Public Administration, Indian Institute of Public Administration (IIPA), New Delhi, Vol. 55, No.2, April-June, pp. 165-184.
Mahajan (2009) highlighted in her paper that electronic dependency and utilization has been emerging as one of the driving force towards economic growth and development in the era of globalization and modernization and India is coming up as one of the ICT giant in the world. Study presented the importance of IT Policy to establish simple, moral, accountable, responsive, transparent government in the State of Punjab. Then she discussed various e-governance initiatives such as PAWAN, SUVIDHA, Common Service Centres (CSCs) etc. undertaken by the Punjab State and suggested various measures for their better implementation.

Pina, Torres and Royo (2009) examined the advances and trends in e-governance in terms of transparency, openness and accountability in European Union (EU) local governments. The objective of the study was to determine the extent to which the internet promotes the convergence towards more transparent and accountable government and to determine the extent to which the different factors related to the implementation of ICT’s with the help of data collected from 75 local government websites by using 73-item questionnaire. The result indicated progress in the application of ICT’s for bringing government closer to citizens and for giving an image of modernity and responsiveness.

Shirin (2009) observed that over the last few decades, there has been a rapid proliferation of e-Governance for Development projects aimed at introducing ICTs to improve systems of governance and thereby to promote development. In this book, the author unpacks the theoretical concepts of development and governance in order to propose an alternative conceptual framework, which encourages a deeper understanding of macro and micro-level political, social and administrative processes within which e-Governance projects are implemented. The book draws on over fifteen years of research in India during which time many changes have occurred in terms of the country’s

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development ideology, governance reform strategy and ICT deployment. Three case studies have been presented, each specific to a different social sector and located in a different state within India, to expose the rich context within which e-Governance applications are implemented. The aim of this book is not to prescribe but to draw attention to the fact that technological solutions such as e-Governance should not overshadow the need to gain a deep understanding of the historical processes of development and governance that have evolved over time.

Sirisaengtaksin (2009) talked about e-Revenue initiative of Thailand Ministry of Finance which has been a showcase under the country e-Government development in the recent decade. The prominent record to proof of the success is Tax Filing that hits almost 80% of the eligible taxpayers in filing their personal income tax through Internet in 2008. The Revenue Department is now trying to extend its tax collection to remote area. Public Private Partnership (PPP) approach has been applied to facilitate IT-readiness for such a high demand community like Koh Tao Island, located about 75 kilometers from the coast of Suratthani province to pay tax online. The PPP effort for this online service project is elaborated in many key aspects including Processes, Preparation and Implementation.

Tsang, Lee and Lee (2009) stated that Knowledge management (KM) in electronic government (e-government) is a critical factor for e-service delivery and it has always been a constant concern in public administration. Many information and communication technology (ICT) enabled applications of KM had become available to support policy development and implementation tasks. They addressed the KM’s key issues and activities. They raised that questions whether the KM approach that has proven to be successful in business environment is applicable to the provision of modernizing government.

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98 Jantima Sirisaengtaksin (2009), Public Private Partnership: Bridging e-Services Implementation in Remote Area, published by IOS Press, Netherlands
Weerakkody, Dwivedi and Kurunananda (2009)\textsuperscript{100} stated that with the advancement of information and communication technologies (ICTs), e-government has emerged as an effective means of delivering government services to citizens. In the recent past, e-government has become popular in many economically developing countries, yet there are numerous attempts to reinvent the wheel. This article argues that e-government initiatives in developing countries can be effectively implemented if experiences acquired by developed countries are shared proficiently. In this context, research was carried out to identify and compare issues pertaining to implementing e-government initiatives in a developed country (UK) and an economically developing country (Sri Lanka). This research identified a number of challenges common to the UK and Sri Lanka that can be classified into the broad themes of political, organizational, and technical contexts. Conversely, a number of e-government adoption challenges such as lack of ICT literacy, inadequate ICT infrastructure, and inability to access e-government services using local languages were also identified that were more specific for the Sri Lankan context. To address these e-government adoption challenges, ICT training coupled with multilingual e-services was recognized as the key enabler in a developing country context.

Yuehua and Johannes (2009)\textsuperscript{101} noted that e-government is at an early stage in China. Despite considerable guidance by central government, distinct regional disparities are visible that can be explained by differences in internet infrastructure, economic resources, and the urbanization rate, but with all this information delivery basic interactional and communicative features dominate. Advanced transactional services or participatory services were also offered.


Aikins and Krane (2010) study showed that although the internet has potential to improve government-citizen relations, many governments at all levels have not taken advantage of the internet to bring citizens closer to their governments because public officials strongly prefer traditional citizen participation to internet-based citizen participation. In addition, deployment of resources to support online participation was restrained by the low preference for internet-based citizen participation. These findings called into question the widespread assumption that public officials enthusiastically embrace the movement towards e-democracy.

Kazmi, (2010) explored that Information and Communication Technologies (ICT) have revolutionized the world by facilitating remote learning and education, far distanced social connection, online employment opportunities and marketing products and services online. Study is based on results of a questionnaire based survey conducted in Pakistan that determines main factors which are web portal quality, technological infrastructure, government policy and human resource influencing e-governance implementation in Pakistan.

Sultanat Janenova (2010) examined that e-government policy in Kazakhstan includes three key stages first stage includes development of the basic components of e-government infrastructure such as the e-government portal etc. promoting internet use among the citizens, second stage includes expansion of the e-government services and comprehensive ICT-enabled re-engineering of government administrative procedures and third stage includes building a fully-fledged information society, provision of e-health, e-education, e-democracy and other services. The Kazakhstani government put high expectations on e-government policy as a panacea for

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public service failures and corrupt system and to make significant investments in the e-government projects.

**Rakhshani, Sarvari and late (2011)** In this study, the authors tested the impact of ICT innovation on Accounting Education and finds out that IT can play an important role in training of accounting and help students and lecturer in achieving their objectives. Innovation in IT proves that training tools have profound impact on students. The author has also made an attempt to check the impact of ICT in accounting education through primary data.

**Mittal and Sethi (2011)** In this paper the researchers have explained the current trends of libraries, which has transformed the methods of creating, processing and disseminating the information and knowledge resources are explained. The researcher pointed out that the new techniques have been introduced and improved the services and security of the libraries. In this paper the authors have also been discussed about RFID a security system for the libraries. It has transformed the libraries from service oriented to user oriented.

**Singh (2011)** In this paper, the author has made an attempt to define the concept of E- governance and Indian Police, which include the function of Indian Police; after this also tried to define the various electronics Means/Tools or e-governance initiatives adopted by Indian Police and its benefits to the society. In the end, an attempt has also been made by the author to do the SWOT (strengths, weaknesses, opportunities, threats) analysis of the use of the e-governance initiatives in Indian Police.

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Singh (2011)\textsuperscript{108} in this paper, an attempt has been made by the researcher to define the concept of E-governance and profile of the Chandigarh Police, which included Mission and vision of the Chandigarh Police. In the end, has also been tried to discuss the various e-governance initiatives adopted by Chandigarh Police and its benefits to the society.

Bhanti, Lehri and Kumar (2012)\textsuperscript{109} defined e-governance as a set of activities involving the effective contribution of information and communication technology (ICT) for strengthening administration and management in higher education system in India. Due to tremendous increase in the number of colleges and universities and their privatization, it has become very important for the government to keep track of their functioning, and e-governance has played an important role in maintaining the database. This paper intends to propose a roadmap to the implementation of an e-governance framework for monitoring, regulating and better administration in Indian higher education system.

Singh (2012)\textsuperscript{110} stated that public administration is passing through a process of crucial change all around the Globe from last few decades. This paper deals with the concept of e-Governance and examines the impact of e-Governance initiatives on the service delivery. He has discussed that the e-governance initiatives have not only enhanced the efficiency and effectiveness of the administrative systems but has also resulted into a mechanism of information sharing vertically and horizontally within as well outside the administrative systems. It also provides transparent, accountable, responsive, hassle free, corruption free and citizen centric services to citizens and also leads to knowledge society in the modern era.


Swapna (2012)\textsuperscript{111} has defined E-Governance as the delivery of Government services and information to the public, by using the electronic means including the dissemination of information to the people and the agencies. In India the concept ‘e-governance’ began with National Informatics Center’s efforts to connect all district headquarters though computers. Further, it proposed the setting up an Indian portal for public access to information on various aspects of government functioning. E-governance promotes the efficiency, enforces accountability, brings transparency in the working of the government system and reduces time delays; all important government policies are useful to people, e-governance also beneficial to the citizens. It involves technologies, policies and infrastructure. In the end, this paper reveals the performance of e-governance in India in the context of its role in Agriculture sector, rural development and promoting social welfare.

Kumar (2013)\textsuperscript{112} In the study has made an attempt to define the concept of E-governance and Police, which consisted the function of Indian Police; after this also tried to define the various electronics Means/ Tools or e-governance initiatives adopted by Indian Police and its benefits to the society. In the end, an attempt has also been made by the author to do the SWOT (strengths, weaknesses, opportunities, threats) analysis of the use of the e-governance initiatives in Indian Police.

Singh and Singh (2013)\textsuperscript{113} stated that IT has a great role in print, broadcast, electronic and advertisement media. It is difficult to survive in the age of information without IT. Further he has discussed the various aspects i.e. Media and governance, advancement in media technology, mass media, social media, web portals, e-governance and so on. In the concluding parts, the study has tried to discuss that the IT has affected the quality of public life and made a greater impact on the socio-political context of public life.


\textsuperscript{113} Dalbir Singh (2013). “IT to help Media to be more Effective in Governance”. Media and Governance, Ajay Kumar Sharma (Ed). Twentyfirst Century Publication, Patiala, pp. 157-163.
1.6.1 INFERENCES DRAWN FROM REVIEW OF LITERATURE

As mentioned earlier, though e-governance is a new emerging phenomenon quite vast in its scope, and there has been a fair amount of studies, policy papers and Government Reports on it.

After reviewing the available literature, some inferences have been drawn from them. These are:-

- E-Governance has improved the quality of delivery of public services to the citizens and consequently has direct impact on the perception of the citizens towards the government system.
- Most of the studies actually looked at the ways to study the quality of services.
- Most of them confined themselves to some of the by-products of introduction of E-Governance in the Administration, such as navigability of a website, transparency, reduction in corruption, quick services, low cost, single window and quality of public services, etc.
- E-Governance has put special emphasis on improvement of Citizen’s participation in government. It offers opportunities to the people for directly participating in political government discussions; further, citizens can contribute their own ideas and share their knowledge and information

Hence, the perusal of literature has highlighted the role of E-governance in the fields of services provision, improvement of administration and improving citizen satisfaction. Studies suggested that there is need for better implementation of e-governance initiatives in administrative processes in India.

1.6.2. RESEARCH GAPS AND APPROACH FOR OVERCOMING THE RESEARCH GAPS

The review of literature reveals that most of the earlier studies have focused on limited aspects regarding the e- governance such as e- governance policy
and implementation, opportunities and challenges, corruption and citizen participation etc. but none of the earlier works has attempted to study the impact of e-governance on overall performance of the administration by focusing on the delivery of quality services, transparency, Corruption, accountability and citizen satisfaction. Further, the previous studies have not made any attempt to assess the e-readiness of the selected departments of the administration.

Keeping all these issues in view, the present study aims to study the e-governance policy of Chandigarh Administration, it also focuses on checking the e-readiness of the selected departments of the Chandigarh Administration. Further, the study examines the impact of e-governance initiatives in terms of enhancing transparency, accountability, quality of services, time and cost saving, etc. In addition to these areas, this study also makes an attempt to know the citizen satisfaction level regarding the e-governance initiatives adopted by the Chandigarh Administration.

1.7 SCOPE OF THE STUDY

The period of the study covered the years between 2005 and 2010. The IT policy of the Chandigarh Administration was announced in April 2000 and it postulated that its objectives will be achieved by 2010. And the major e-governance project named e-sampark centres of the Chandigarh Administration has also been started from September 2004.

1.8. OBJECTIVES OF THE STUDY

The study aims to examine

1. The E-Governance Policy of Chandigarh Administration.
2. The e-readiness of selected government departments in Union Territory, Chandigarh.
3. The level of satisfaction of citizens towards e-governance initiatives in Chandigarh Administration.
4. The impact of e-governance initiatives adopted by Chandigarh Administration on the quality of public services; and
5. Suggest suitable policy recommendations in the field of e-governance.

1.9. HYPOTHESES OF THE STUDY

The main hypotheses of the study are:-

1. The level of e-readiness is very low in the selected departments of Chandigarh Administration in comparison to the benchmarks.
2. E-governance has helped institutionalizing effective performance evaluation system.
3. E-governance has enhanced the revenues to the Chandigarh Administration.
4. With the introduction of e-governance initiatives, the provisions and quality of public services to its citizens has improved.
5. E-governance has led to simplification of rules and rationalization of procedure of the Chandigarh Administration.
6. The E-governance has brought transparency in the system, which has helped in checking the corruption.
7. E-Governance has made the system more accountable.
8. E-Governance initiatives have increased the level of citizen satisfaction regarding the provision of services in Chandigarh Administration.

1.10 RESEARCH METHODOLOGY

The study reviewed the Policy and Administration of E-Governance, and the citizen satisfaction regarding the e-governance implementation in Union Territory, Chandigarh. For this purpose, the major e-governance initiatives adopted by Chandigarh Administration are studied.

Nature and Sources of Data: Both primary and secondary data have been collected. The total sample size was 200. The primary data was collected by employing following data collection methods.
**Questionnaire:** Comprehensive structured questionnaires were administered to gauge the citizens' opinions with respect to the services provided by the Sampark Centers of the Chandigarh Administration. The questionnaires were administered to selected respondents visiting the sampark centres, based on random sampling, in the sample. 25 users of services from each Sampark centers i.e. (Sector-15, 18, Manimajra, Industrial area Phase –1) Jan Sampark Centres (Sector 20) and Gram Jan Sampark Centres (Dhanas, Mauli Jagran, Kaimbala).

**Interview and informal Discussion:** Interview schedules were prepared for the officials of the selected Departments i.e. Department of Information technology, Estate Office, Excise and Taxation and Chandigarh Housing Board in order to examine the level of e-readiness of their respective Departments. The five employees from each Departments have been interviewed which included Departmental Heads, Programmers, Operators and Designers, for filling the interview schedule. The total 16 employees were interviewed from the selected departments. The interview schedule in case of e-readiness consists of four parts, namely IT policy, Department Computerization, human resource training and Government Process Reengineering. For the first part, Head of the Department was interviewed, computer operator was interviewed for second part, an official detained by NIC was interviewed and computer programmer was interviewed of the fourth part. Informal discussions were also held with other employees and specially programmers, who designed and programmed the services.

**Observation Method:** Observation was employed to supplement the information collected in the field surveys. Strategic issues, such as delivery of services, timing of working hours at Sampark Centers, behavior of the dealing persons with citizens at Sampark centers, timing for providing services, availability of dealing persons, competence of dealing persons in terms of job handling were also observed.

**Secondary data:** Secondary data was collected from various sources, published and unpublished documents, articles records and annual reports of Department of Information Technology, Estate Office, Excise and Taxation and Chandigarh Housing Board. In addition, websites as a source of information were increasingly relied upon. Various plans documents were also
used. Libraries and other relevant institutions were also visted to obtain necessary information pertaining to E- Governance.

**Data Processing and analysis:** Further, a coding sheet was prepared on the Statistical Product for Service Solutions (SPSS) package (Version 16.0) on the basis of the information collected through questionnaire. The collected data was coded on the master sheet. Frequencies and percentages were calculated from the grouped data and then cross tables were prepared and average weightage score test was used. For preparing the cross tables, the data was classified into six categories, namely age, sex, education, occupation, income and area. Further, each of these categories were divided into different sub-categories. Age was categorized into four sub-categories: 16-30 years; 31 – 45 years; 46- 60 years and 60 years and above. On the basis of sex, the respondents were divided into two sub-categories: Male and Female. On the basis of education, the respondents were categorized into five sub-categories: illiterates; below matriculation; matriculation; higher secondary and graduates and above. On the basis of occupation, the respondents have been divided into four sub-categories: Government service; private service; student and any other (like Business men, Shopkeepers, Mechanics and Carpenters etc.). The parameter of income was categorized into four sub-categories: without income; below Rs. 5,000 per month; between Rs. 5,000 & Rs.10,000 per month and above Rs. 10,000 per month. For the purpose of study, the respondents of both the Urban and Rural area were studied.

**Scoring:** The satisfaction of people was measured on the basis of Likert’s 5-point scale i.e. Highly Satisfied, Satisfied, Neutral, Dissatisfied and Highly Dissatisfied.
CHAPTERIZATION

The following chapter scheme was followed:-

CHAPTER 1: INTRODUCTION: This chapter provides the concept, stage and scope of E-Governance in general, followed by the description of E-Governance in U.T Chandigarh. In addition, the chapter contains review of literature, objectives and hypotheses of the study along with research methodology and chapterization.

CHAPTER 2: E-GOVERNANCE IN INDIA: The Chapter discusses the recommendation of the Ninth, Tenth and Eleventh five years plans about the E-Governance in India, followed by the brief introduction of different E-Governance initiatives of the various states. At the end some critical issues in implementation of E-Governance have been discussed.

CHAPTER 3: E-GOVERNANCE POLICY OF CHANDIGARH ADMINISTRATION: It describes the profile of the Chandigarh and the E-Governance Policy of U.T. Chandigarh. In the Chapter an attempt is also made to analyses the status of the E-Governance policy in Chandigarh.

CHAPTER 4: READINESS TOWARDS E-GOVERNANCE IN SELECTED DEPARTMENTS OF CHANDIGARH ADMINISTRATION: The chapter discusses the concept of E-Readiness and the various e-readiness initiatives both at the global and Indian level. At the end, E-Readiness analysis of the selected Department of Chandigarh has been made.

CHAPTER 5: PROVISION OF SERVICES THROUGH E-SAMPARK CENTRES: This Chapter provides an overview of E-Sampark project in Chandigarh which includes the details of the project, functions of the E-Sampark, Jan Sampark and Gram Sampark Centers. Finally, the performance of the Sampark center has been evaluated and the revenue generated by the Sampark Centers has been analyzed.

CHAPTER 6: IMPACT OF E-GOVERNANCE ON DELIVERY OF SERVICES, QUALITY OF SERVICES, EFFICIENCY, TRANSPARENCY, ACCOUNTABILITY AND CORRUPTION IN CHANDIGARH ADMINISTRATION: In this chapter the impact of E-Governance on the quality
of Services, Transparency, Accountability and the Simplification of procedures has been evaluated on basis of the selected benchmarks.

**CHAPTER- 7: CITIZEN SATISFACTION:** This Chapter contains the analysis of the primary data collected from 200 respondents. Here an attempt has been made to know the citizen’s satisfaction regarding the services of e-governance in Chandigarh.

**CHAPTER- 8: SUMMARY, CONCLUSION AND POLICY PRESCRIPTIONS:**
- The last chapter contains Summary, conclusion and policy prescriptions for improving the E-Governance initiatives in Chandigarh.